

Committee on Foreign Relations of the United States Senate
Subcommittee on African Affairs

“African HIV/AIDS Crisis: Pursuing Both Treatment and Prevention”

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Senators,

Thank you for the opportunity to testify today regarding one of the most urgent problems facing humanity – the global AIDS pandemic. The decisions that the Congress and Administration make regarding the pandemic will determine the life or death of millions of people in the next few years, and will affect America’s security and standing in the world for decades to come. To date, the United States and other donor countries have under-financed AIDS control in poor countries. This has allowed the pandemic to run rampant. Millions of poor people are needlessly dying every year when their lives could be extended by appropriate medical care at modest cost and enormous benefit to the United States.

Last month, I visited some of the dying fields of Africa. I stood in Queen Elizabeth Hospital in Blantyre, Malawi where 70 percent of the medical admissions are AIDS-related. Hundreds of patients are crowded into the wards to die, two or three to a bed, with patients also lying on the floor under the beds. Hospital services are collapsing under the weight of the epidemic. There are no life-saving drugs given to these people because neither the dying patients nor the Government of Malawi can afford the medications.

Yet across the hall, an outpatient service successfully treats the small fraction of HIV-infected people who can afford one dollar per day. Hundreds of people are successfully on antiretroviral therapy. The problem in this hospital is not infrastructure, doctors, testing equipment, adherence by patients, the ability to tell time – it is simply the shortage of \$1 per day per patient that would supply life-saving drugs. Even when one adds in the testing and counseling costs in addition to the direct costs of drugs, it is very likely that total spending would remain well under \$3 per person per day.

While the stain of U.S. neglect during the first 20 years of the pandemic can never be washed away, it is not too late to act, for our direct security needs as well as our moral purpose as a great nation. The most important step is for the U.S. Government to get

organized to help lead the global war against AIDS. Currently, the Government *lacks*: clear organizational lines of responsibility (with responsibilities divided among several Departments and agencies without any clear leadership); a long-term strategy for a scaled-up war against AIDS; and a multi-year budget strategy commensurate with global needs (and even lacks a single serious study of the budgetary outlays that will be required). The Administration is moving reactively, not proactively. It is picking levels of budgetary support (such as \$200 million in FY03 for the Global Fund to Fight AIDS, Tuberculosis, and Malaria) out of the air, not out of a strategy.

In addition to better organization, the United States should increase its spending on AIDS control by contributing at least \$2.5 billion in FY03 to control of AIDS in poor countries, of which at least \$2 billion should go the Global Fund, for the reasons described below. Our contribution of \$2.5 billion to AIDS control should be matched by at least \$5 billion from Europe and Japan, for a total outlay of \$7.5 billion for HIV/AIDS control. The Global Fund should disburse at least \$6 billion for AIDS, tuberculosis, and malaria in FY03.

The Global Fund has \$700 million available for disbursements in 2002, of which the U.S. share is \$250 million. The Congress and the Administration should agree to a supplemental appropriation of at least \$750 million for FY02, to raise the U.S. contribution this year to \$1 billion. This in turn should be matched by at least \$2 billion from Europe and Japan, for a total of \$3 billion. Without this supplemental appropriation, the Fund will either run out of money during the year, or will drastically ration the size of programs that it approves, to the serious detriment of disease control efforts.

Scale of Financial Assistance for HIV/AIDS Control in Poor Countries

Table 1 breaks down the financing of AIDS control in recent years, and estimates the needs for U.S. contributions for AIDS and for total disease control efforts in poor countries in the coming years.

In the second half of the 1990s, America spent around \$10 billion dollars per year battling the AIDS epidemic at home, but only around \$55 million per year in helping Sub-Saharan Africa to battle the epidemic. For all developing countries, spending on AIDS was around \$120 million per year. It is worth recalling that the U.S. has about 1 million HIV-infected individuals, while the developing world has 38 million infected individuals. Treatment costs, I will note below, are of course much lower in the poor countries, but the combination of prevention and treatment costs will still require vastly higher donor assistance to meet the needs of the tens of millions of individuals already infected and the hundreds of millions that are at risk of infection.

U.S. international assistance to fight AIDS has recently begun to increase, to around \$690 million in FY02 (not including around \$188 million in NIH research funding), with perhaps two-thirds of that aimed at Africa (depending, for example, on allocations from the new Global Fund to Fight AIDS, TB, and Malaria). The FY03

budget request again increases the total international spending on HIV/AIDS to around \$895 million (not including \$222 in NIH research funding), with \$200 million requested for the Global Fund. While these recent spending increases are certainly in the right direction, U.S. assistance is still woefully short of any realistic sum needed to help the poorest countries, especially in Sub-Saharan Africa, fight the AIDS pandemic.

Secretary General Kofi Annan has called for \$7 to \$10 billion per year for the control of AIDS in low-income countries, an estimate that has been supported by several expert studies, published in the world's leading journals, such as *Science Magazine* (Schwartlander, et. al., 2000) and elsewhere. Looking out a few years, the worldwide need for donor assistance to control AIDS will probably be at the high end, perhaps reaching \$10-15 billion depending on the course of the epidemic, the evolution of treatment costs, and ability of the low-income countries to scale up AIDS control efforts.

In the past two years, I chaired the WHO Commission on Macroeconomics and Health, which was charged in part with determining donor financing needs to address the interlocking pandemics of AIDS, malaria, tuberculosis, and other killer diseases. Our study, released in December 2001, determined that Sub-Saharan Africa would need total donor assistance for health of around \$18 billion per year as of 2007, of which more than half would be devoted to the control of AIDS, with the rest directed at other killer diseases such as tuberculosis, malaria, vaccine-preventable diseases, respiratory infections, and diarrheal diseases. Since other regions would also need donor assistance to fight AIDS, the worldwide need for donor assistance to fight AIDS could reach \$10-15 billion per year by 2007.

Since the U.S. represents around 40 percent of the GNP of the donor world (\$10 trillion out of \$25 trillion in total donor GNP), the U.S. share of the total health assistance will need to be at least one quarter of the total, if not more. This means that U.S. spending on AIDS in Africa will require at least \$2 billion per year, and *total U.S. foreign assistance for AIDS should reach at least \$2.5 to \$3 billion per year worldwide in FY03*. According to the Report of the Commission, total worldwide donor spending on all types of health programs should be approximately \$27 billion per year by 2007, so that total U.S. health assistance would be in the range of \$7 - \$8 billion per year, roughly five to six times the current level.

These numbers may seem large, Senators, but the amount of suffering and global risk posed by the pandemic diseases is far greater. The Commission findings suggest that if the U.S. invests on the order of \$7 – 8 billion per year as part of a global program of around \$27 billion per year as of FY07, around 8 million deaths will be averted each year by the end of the decade. We can save 25,000 people every day from deaths due to AIDS, malaria, tuberculosis, and other killers if we put our minds, and a modest part of our incomes, to it. Note that \$7 to 8 billion per year for global health needs would represent far less than one half of one percent of our national budget, and less than one penny out of every 10 dollars of our income.

The United States, while the second largest donor in absolute terms (after Japan), has become *the smallest donor in the world when aid is measured as a share of income!* (Chart 1). We are now spending only 0.1 percent of GNP on all forms of official development assistance, compared with an average of more than 0.3 percent of GNP in Europe. The oft-repeated excuse that “aid does not work” is a cruel abnegation of U.S. responsibility. We must stop talking about “aid” in generic terms, and start discussing targeted financial support for specific health interventions – such as prevention and treatment of AIDS, increased coverage of immunizations, wider dissemination of anti-malaria bednets, and the like. History demonstrates that such targeted interventions have a high success rate. From the expanded program on immunization (EPI); to the campaigns against smallpox, polio, African river blindness, and trachoma; to the spread of oral rehydration therapy; directly observed therapy short-course (DOTS) for tuberculosis, and insecticide-impregnated bednets, foreign assistance for health has worked well. Unfortunately, the level of aid has always been tragically meager compared with the level of need.

Donor support for Anti-Retroviral Therapy in Poor Countries

Life-saving antiretroviral combination therapies have been available since the mid-1990s. Yet given the low levels of donor assistance, the stunning fact is that *not one person* in the developing world – out of the more than 60 million who have been infected by the HIV virus since 1981 – has received such drugs through official donor support from the U.S. or any other country or multilateral institution. Let me repeat that, Senators. Not one person in the developing world has yet received donor-supported antiretroviral therapy! The U.S. and other leading donors have so far turned their backs on millions of dying people. This dreadful fact is supposed to change, finally this year, when the Global Fund and USAID both begin to support the introduction of antiretroviral therapy. Yet the donor sums so far committed in 2002 will permit only a very small scaling up of treatment relative to the enormous needs.

For many years it was casually supposed that antiretroviral treatment was too expensive for low-income countries. Drug regimens cost \$10,000 or more per year in the United States. But it has come to be understood that the prices of antiretrovirals in the U.S. are vastly higher than the actual production costs, which are probably on the order of \$300 - \$750 dollars per regimen per year, depending on the precise combination of medicines. The high margin of the price over marginal production cost reflects the returns on research and development, a margin that is properly protected by patent rights. Yet, the lower production costs make it possible to provide the low-income world with the drugs at the actual marginal cost of production, close to \$1 per day for the least expensive combinations. The leading pharmaceutical companies, and high-quality generic producers that have access to the African market (which has little patent coverage for most of the relevant drugs) have shown their readiness to provide drugs at the much reduced prices. Still, the impoverished countries in Africa require donor assistance even to cover the costs of \$1 per day for the drugs (and perhaps another \$1 per day on average for the accompanying testing and medical care).

A high-end estimate is that anti-retroviral treatment will require around \$1,000 per patient per year in low-income settings, including the costs of drugs, testing, and medical care. This can probably be reduced to around \$500 per patient per year with further reductions in drug prices, and optimized regimens regarding testing and medical care. Of the 25 million Africans currently infected with HIV, perhaps 4 to 5 million would qualify for highly active antiretroviral therapy on clinical grounds. Of these, it is estimated that perhaps 25,000 – 50,000 are currently receiving the medicines, while the rest are dying. Even those receiving the medicines are often on sub-optimal regimens, with interruptions of drug availability, inadequate drug combinations, and poor monitoring.

UNAIDS, WHO, and other expert groups that have looked closely at this believe that 5 million people in low-income settings, mainly in Africa, could be on successful antiretroviral therapy within 5 years. Indeed, the numbers could be even higher if scaling up is given adequate support. That would suggest a total cost of around \$5 billion per year for antiretroviral treatment by FY07, plus the costs of prevention programs and treatment for opportunistic infections, thereby arriving at the cost estimate of \$9 – 12 billion of donor support by FY07.

The Global AIDS Pandemic and U.S. Security

Let me briefly address the highly adverse foreign policy implications of the AIDS epidemic for the United States, and then discuss the importance of scaling up treatment, including anti-retroviral therapy, to control the epidemic.

AIDS is destroying the prospects for African economic development and democracy

The greatest hope for democracy and economic progress in Africa remain our friends such as South Africa, Nigeria, Botswana, Ghana, Mozambique, Malawi, and Tanzania. These nations, among many others in the region, are being ravaged by AIDS. Foreign investment has been seriously impeded as investors avoid countries where a significant proportion of the labor force is likely to be HIV-infected. It is not poor villagers alone who are dying: an entire educated and professional class is disappearing. The labor force, including the most highly productive age groups, is being wiped out. Sub-Saharan Africa now has 25 million HIV-infected individuals, roughly 9 percent of the adult population between the ages 15 and 44. More than two million Africans are dying of AIDS each year. In Southern and Eastern Africa, the prevalence is well above 10 percent, and in hard hit countries, 25 percent or more. AIDS has become a dire and fundamental impediment to economic progress in Africa and leaves an even more troubling legacy: tens of millions of orphaned children.

AIDS is creating a demographic catastrophe, with profound security risks

AIDS has already left behind more than 12 million orphans, and epidemiological estimates suggest that the number could rise to 40 million by the end of the decade unless the pandemic is staunched. As America lets millions of African die for want of \$1 per day in medicines, millions more children are left orphaned. Common sense and repeated studies have shown that these children are at great risk of hunger, neglect, withdrawal from schooling, crime and violence.

AIDS is creating a breeding ground for terrorism

Disease is repeatedly found to be one the most powerful predictors of state collapse and internal violence. The CIA Task Force on State Failure identifies high infant mortality rates as one of the three most powerful predictors of subsequent state failure (in addition to lack of democracy and lack of open economy). Furthermore, AIDS is decimating adult populations and increasing the percentage of populations which are aged between 15 and 24. Research has determined that such demographic shifts are a major predictor for the outbreak of conflict.

AIDS is fomenting a social and political backlash against the United States

Throughout Africa and the developing world, people believe that they have been left to die by America. They are aware that life-saving drugs exist to save them, but that those drugs are not being made available. Conspiracy theories abound in Africa that AIDS is a deliberate policy of genocide by the United States, or an accident of the CIA gone awry. These desperate flights of fancy aside, our *actions* to date point to one conclusion: America judges African lives to be worth less than \$1 or \$2 per day.

AIDS is threatening China and India and other parts of the world

What has come to Africa will soon be true in the populous centers of Asia, including India and China, where the epidemic is still in its early stages. The destabilization that could arise from full-fledged epidemics in those countries is harrowing. We must not ignore the central truth about epidemics: they are far less costly to control at an early stage.

AIDS is threatening U.S. public health

AIDS originated in Africa, probably West Africa, sometime around 1930 according to the best current estimates. It went undetected for decades, in part because of the remarkably poor state of public health surveillance in Africa, and was only identified as a new disease in 1981 after it had spread to the United States. In this sense, AIDS is precisely the kind of threat of cross-border transmission of infectious diseases that public health officials have warned us about for decades. Our neglect of burgeoning infections abroad – whether from AIDS, or tuberculosis, or other new and rapidly evolving viral and bacterial conditions – poses stark risks to *American* public health. The day has already arrived when any one of us could, during a flight or in a theater, be infected with multi-drug resistant tuberculosis, the treatment of which involves two years of chemotherapy.

AIDS is also evolving rapidly, and there are reasons to suspect that some viral subtypes may be more transmissible and virulent than others. New forms of the disease in Africa or elsewhere, especially if uncontrolled, will readily jump to the United States with dire consequences. Thus, we must act decisively not only because it will save lives abroad; it will save lives here at home as well.

Designing a Control Strategy that Can Meet the Challenge of a Global Pandemic

AIDS requires a comprehensive strategy, including both prevention and treatment

The most pernicious myth of donor policy has been that prevention alone, without treatment, will control the epidemic. This view is brutally shortsighted and fundamentally flawed. Both prevention and treatment are necessary. In the Report of the Commission on Macroeconomics and Health, we concluded that total spending on AIDS should fall into three roughly equal categories: prevention programs; treatment of opportunistic infections; and antiretroviral therapy.

Anti-retroviral therapy is necessary for two basic reasons. First, we cannot afford to allow millions of working-age Africans -- mothers and fathers and core members of the labor force -- to die for lack of \$1- 2 per day in medicines and treatment costs, given the enormous resulting losses in economic development, the millions of orphans that would be left behind, and the resulting threats of violence, political destabilization, and social upheaval. It is just dreadful economic miscalculation to believe that it is "cost effective" to stand by and allow a generation to die for lack of \$500 - \$1000 per patient per year for medicines and ancillary care.

Second, treatment is vital for successful prevention. In the United States, the Centers for Disease Control terms antiretroviral treatment a form of "secondary prevention." The availability of treatment encourages people to get tested for HIV infection, and then to receive counseling if they are infected. Yet in Africa, where testing is not now followed by treatment, individuals rarely seek testing and counseling, and it is estimated that fewer than 5 percent of HIV-infected individuals actually know their status. Without counseling and testing, one of the key methods of limiting transmission is lost.

The benefits of treatment for prevention go well beyond encouraging counseling and testing. Stigma is reduced when the disease is known to be treatable, and the disease can be addressed in much more direct and sensible manner. Irrational and often highly destructive social interpretations of the disease (e.g. that it is a form of witchcraft, or a CIA form of bioterrorism, or that it can be cured by having sex with a virgin) are diminished as soon as successful medical interventions are demonstrated. Politicians stop hiding from the epidemic when they can offer hope to their populations. Medical staffs, currently unable to save their dying patients for want of medicines, are re-energized to fight the epidemic.

Treatment is feasible at a greatly enlarged scale

Physicians experienced in Africa know that treatment can be successfully scaled up dramatically. Many doctors in Africa and other resource-poor settings are already successfully treating patients, but only the small proportion who are able to purchase the drugs out of pocket. With concerted financial support, training to African medical personnel could be expanded dramatically; testing facilities could be expanded or created; and new protocols could be elaborated to ensure a reliable flow of drugs and high patient adherence to drug regimens. WHO and UNAIDS estimate that at least 5 million patients in low-income settings could be on anti-retroviral therapy by the end of 2006.

The Global Fund is the best single investment for the United States in AIDS control

The Global Fund to Fight AIDS, Tuberculosis, and Malaria is an important new weapon in the fight against AIDS. The Fund was formally launched in January 2002, and will receive the first round of proposals by March 10, 2002. Initial funding is likely to begin by late April.

The Global Fund has several key strengths.

- (1) The Fund will be the key source of multilateral grant financing for AIDS control in low-income countries, especially since the World Bank is still hamstrung in making loans rather than grants for AIDS control efforts in low-income countries;
- (2) The Fund effectively pools donor resources, so that countries can create a comprehensive strategy and apply to one single source of financing, rather than to twenty or more distinctive and often contradictory assistance programs supported by individual bilateral donors;
- (3) The Fund leverages U.S. funding by encouraging donor support from Europe, Japan, and other high-income countries. The initial U.S. contribution of \$300 million combined in FY01 and FY02 has now been matched by at least \$1.5 billion from other donors. While the total sums are still far too low, the leveraging of U.S. aid is clear;
- (4) The Fund offers Congress and the international community a transparent mechanism for monitoring the flow of funding proposals and funding decisions, thereby helping to ensure that donor funds are disbursed in a sensible and evidence-based manner. One of the strongest features of the Global Fund is that proposals will be vetted by an independent expert review committee;
- (5) The Fund is already spurring initiative at the grass roots (including local non-governmental organizations), as well as increased collaboration between governments and civil society;

(6) The Fund will enable selectivity in the choice of programs and countries that will be funded, so that funds can be held back from corrupt governments and inappropriate programs;

(7) The Fund will enable improved monitoring and auditing of the actual use of donor funds.

(8) Programs supported by the Fund can and should include financing for operational and clinical research linked to the provision of health services. The Fund can be an important vehicle for financing the research necessary to optimize treatment protocols.

Research Efforts Should Be Intensified

The U.S., through the National Institutes of Health, is already the world's leader in basic research in AIDS. This leadership should be maintained and enhanced, with increased research contributions from other donors as well. Recent advances in vaccine research suggest that an effective vaccine may be available within a decade, if not sooner. There will need to be considerable coordination across countries in the basic research, product development, and clinical testing, to speed the process. The International AIDS Vaccine Initiative, among others, has already made important strides in this area, and work by IAVI and others should be supported by the U.S. Government.

In addition to basic research on the immunology and pathophysiology of AIDS, and applied research on vaccines and therapeutics, the U.S. should actively support clinical and operational research into treatment protocols, as well as epidemiological and behavioral research related to the transmission of the disease on the population level. The Fogarty Institute at the National Institutions of Health can play a key role in strengthening the capacity of poor countries to carry out clinical and operational research, in programs such as the awards for International Clinical, Operational, and Health Services Research (ICOHRTA). The Centers for Disease Control can play a key role in helping countries with the epidemiological and behavioral research, as well as surveillance studies.

Immediate Steps

Budgetary outlays of \$2.5 billion FY03

The Congress and Administration should support a U.S. contribution to AIDS control of at least \$2.5 billion in FY03, of which the Global Fund should receive at least \$2 billion, compared with the Administration's request of \$200 million. The \$500 million minimum of additional funding should support programs of USAID, NIH, and CDC.

Supplemental budget in FY02

Congress and the Administration should be prepared to make a supplemental appropriation for the Fund during FY02 of \$750 million, raising the FY02 U.S. contribution to \$1 billion.

Bi-partisan Congressional Mission to Africa during this Spring

Given the urgency of the global AIDS pandemic, and the role that the U.S. must play to overcome it, it is critical for Congressional leaders and staff to understand the crisis on a first-hand basis. Much of what is reported, especially the alleged obstacles of effective treatment in the African context, does not reflect on-the-ground reality. Moreover, the sheer scale of the crisis is difficult to fathom without a first-hand view.

For this reason, I strongly urge that the Congressional leadership appoint a bi-partisan mission to travel to Africa and to report back to the Congress this Spring. The claims and counter-claims can then be evaluated directly, and the shocking enormity of the crisis will better be brought to the American people through their Representatives in Congress.

The Opportunity

The United States has missed an enormous opportunity during the past two decades to establish global leadership in quelling the AIDS epidemic. It's been an opportunity to not only save lives and make a contribution to the global economy; it's been an opportunity to promote enormous good will towards our nation, to shore up democracy and economic growth, and to lessen the threats posed by destabilized states.

I come today bearing one message: today is not too late to act. While millions have died and instability has grown, we can still avert the worst. Senators, in our lifetimes our children and grandchildren will ask us what our country did during the worst epidemic to strike humankind. With your leadership, I hope that we shall be able to offer a response that makes us all proud to be Americans.

Table 1. Estimated Budgetary Outlays and Needs for AIDS and All Disease Control

	FY95-99	FY2000	FY01	FY02	FY03	Estimated Need FY07
U.S. AIDS Spending Domestically	\$10 billion	\$10 billion	\$10 billion	\$11 billion	\$12 billion	
U.S. AIDS Spending in Poor Countries	\$120 million	\$235 million	\$449 million	\$690 million (not NIH research)	\$895 million (not NIH research)	
U.S. AIDS Spending in Africa	\$55 million	\$109 m (USAID) +\$25 m (est. CDC)	\$145 m (USAID) +\$75 m (est. CDC)	\$460 million (estimate)	\$597 million (estimate)	
Estimated AIDS Needs from All Donors					\$7-10 billion	\$9 –12 billion
Estimated AIDS Needs from U.S.					\$2.5 billion	\$3.5 billion
U.S. Funding for all Disease Control					\$1 billion (USAID) + 350 m (est. other)	
Estimated Needs for U.S. Funding for all Disease Control					\$ 3 - 4 billion	\$7 - 8 billion
U.S. Contribution to Global Fund			\$200	\$100 m	\$200m	
Estimated Need for U.S. Global Fund Contribution				\$1 billion	\$2 billion	\$3 billion

Chart 1: Net Official Development Assistance Flows from DAC Members

